ONYX-515/517/519

High Brightness

Touch Screen

Square aspect ratio

Copyright Notice

This document is copyrighted, 2013. All rights are reserved. The original manufacturer reserves the right to make improvements to the products described in this manual at any time without notice.

No part of this manual may be reproduced, copied, translated, or transmitted in any form or by any means without the prior written permission of the original manufacturer. Information provided in this manual is intended to be accurate and reliable. However, the original manufacturer assumes no responsibility for its use, nor for any infringements upon the rights of third parties, which may result from its use.

The material in this document is for product information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, ONYX Healthcare Inc., assumes no liabilities resulting from errors or omissions in this document, or from the use of the information contained herein.

ONYX Healthcare Inc. reserves the right to make changes in the product design without notice to its users.

Packing List

Before you begin installing your LCD Monitor, please make sure that the following items have been shipped:

- ONYX-515/517/519 Medical Display
- CD-ROM which Contains User's Manual
- Adapter / VGA cable / HDMI cable / Audio Cable

If any of these items are missing or damaged, you should contact your distributor or sales representative immediately.

Headquarters

Onyx Healthcare Inc.

2F, No.135, Lane 235, Pao-Chiao Rd.,

Hsin-Tien City, Taipei 231, Taiwan, R.O.C.

TEL: +886-2-8919-2188

FAX: +886-2-8919-1699

E-mail: sales@onyx-healthcare.com

http://www.onyx-healthcare.com

Worldwide Offices:

Onyx Healthcare, USA Inc.

2663 Saturn street, Brea, CA 92821, USA

Tel : +1-714-996-1800

Fax: +1-714-996-1811

Onyx Healthcare EUROPE B.V.

Ekkersrijt 4002, 5692 DA Son, The Netherlands

Tel : +31-(0)499-462020

Fax: +31-(0)499-462010

Onyx Healthcare Technology GmbH

An der Trift65d

63303 Dreieich , Germany

TEL: +49-(0)61033-7479-00

Fax : +49-(0)61033-7479-49

Onyx Healthcare (SU ZHOU) INC.

Room 12, 2F, Building B, No.5 Xing Han Street, Suzhou Industrial Park, Jiang Su Province, China

Tel: +86-512-67625700

Fax: +86-512-67617337

Email: cnsales@onyx-healthcare.com

Onyx Healthcare Singapore PTE LTD

57 Genting Lane, #07-00, Singapore 349564

Tel: +65-67498749

Fax +65-67461595

Email: sgsales@onyx-healthcare.com

Safety & Warranty

1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. **Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.**
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

14. **If any of the following situations arises, get the equipment checked by service personnel:**
    a. The power cord or plug is damaged.
    b. Liquid has penetrated into the equipment.
    c. The equipment has been exposed to moisture.
    d. The equipment does not work well, or you cannot get it to work according to the user's manual.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.
15. **DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -10° C (14°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.**

Warning

A shielded-type power cord is required in order meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used. Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

China ROHS requirements

Below Table for China RoHS Requirements

產品中有毒有害物質或元素名稱及含量

部件名稱	有毒有害物質或元素					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr(VI))	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
液晶模組	×	○	○	○	○	○
觸控模組	×	○	○	○	○	○
電源	×	○	○	○	○	○

O：表示該有毒有害物質在該部件所有均質材料中的含量均在 SJ/T 11363-2006 標準規定的限量要求以下。

X：表示該有毒有害物質至少在該部件的某一均質材料中的含量超出 SJ/T 11363-2006 標準規定的限量要求。

備註：

一、此產品所標示之環保使用期限，系指在一般正常使用狀況下。

二、上述部件觸控模組為選購品。

Contents

Chapter 1 General Information

1.1 Introduction 10

1.2 Feature 10

1.3 Specification 11

1.4 Dimension 18

Chapter 2 Hardware Installation

2.1 Safety Precautions 22

2.2 Connecting to the Computer 22

Chapter 3 On Screen display Control

3.1 On Screen display Controls. 24

3.2 Function Select. 24

3.3 Function Adjustment. 25

Chapter 4 Driver Installation

4.1 Touch Screen Driver Installation 30

Appendix A Miscellanea

5.1 General Cleaning Tips 32

5.2 Cleaning Tools 32

5.3 Scrap Computer Recycling 33

Chapter 1

General Information

1.1 Introduction

ONYX launches a series of Medical Display – the ONYX-515, ONYX-517 and ONYX-519. The ONYX-515, ONYX-51 and ONYX-519 which are 15” XGA (1024 x 768), 17” SXGA (1280 x 1024) and 19” SXGA (1280 x 1024) respectively are rugged true color TFT display panels that have been approved according to EN60601-1 standards for limited power leakage and electronic emission.

ONYX -515, ONYX -517 and ONYX -519 provide a VGA port and a DVI port for medical images. An **O**n **S**creen **D**isplay (OSD) on the front panel allows convenient operation.

These Smart Medical Displays are designed to target the medical market and great medical operation. If you are looking for a Medical Display, the ONYX-515, ONYX-517 and ONYX-519 definitely will be your best choice for medical market applications.

1.2 Feature

These displays provides broad range of 15”/ 17”/ 19” LCD panels, long lifetime TFT LCD monitors.

- 15”/ 17”/ 19” color TFT LCD display
- Easy To Use, Compact
- Resistive Touch Screen (Optional)

1.3 Specification

Hardware Specifications

Display	ONYX-515: 15” XGA color TFT LCD ONYX-517: 17” SXGA color TFT LCD ONYX-519: 19” SXGA color TFT LCD
Speaker	1x 1W
I/O	USB for touch controller x 1 VGA-in x 1 DVI-in x 1 Audio-in x 1

Accessory Pack

Power cord	1
Adapter	1
VGA cable	1
DVI cable	1
USB cable	1
Audio cable	1
CD-ROM	1

LCD Specifications

Model Name	ONYX-515	ONYX-517	ONYX-519
Display Type	17” color TFT LCD	19” color TFT LCD	21.5” color TFT LCD
Max. Resolution	1024*768	1280*1024	1280*1024
Max. Colors	16.2M	16.7M	16.7M
Dot Size (mm)	0.297 x 0.297	0.264 x 0.264	0.294 x 0.294
Brightness (Typ.)	250 nits	350 nits	350 nits
Viewing Angle (CR=10)	160°(H)	170°(H)	170°(H)
	130°(V)	160°(V)	160°(V)
Contrast Ratio (Typ.)	700 : 1	1000 : 1	1000 : 1
Back Light MTBF	50,000 Hrs	50,000 Hrs	50,000 Hrs

Note: All ONYX's LCD products are manufactured with High precision technology. However, there are a small number of defective pixels in all LCD panels that are not able to change color. This is a normal occurrence for all LCD displays from all manufacturers and should not be noticeable or objectionable under normal operation. ONYX LCD panels are qualified for industry standard conditions in the following: total 7 dead pixels on a screen or if there are 3 within 1 inch square area of each other on the display.

Mechanical Specifications

Architecture	Close-frame
Front Bezel (optional)	1. Plastic bezel 2.Plastic bezel with resistive touch screen
Color	White BZL / White RC
VESA Mount	75mm x 75mm
Dimension (W x H x D)	ONYX-515: 13.7” x 10.9” x 1.8” (347mm x 276mm x 45.2mm) ONYX-517: 14.9” x 12.5” x 1.9” (378mm x 317.5mm x 48.6mm) ONYX-519: 16.6” x 13.8” x 1.9” (421.4mm x 350.5mm x 48mm)
Net Weight	ONYX-515 : 7.05 lb (3.2 kg) ONYX-517 : 10.36 lb (4.7 kg) ONYX-519 : 11.24 lb (5.1 kg)
Gross Weight	ONYX-515: 8.6 lb (3.9 kg) ONYX-517: 11.9 lb (5.4 kg) ONYX-519: 13.23 lb (6.0 kg)

Power Supply Specifications

Power Requirement	Requirement DC 12V ■ AC adapter (Input power rating) 100~240VAC, 47~63Hz ■ DC Output 12V@ 5.83A
MTBF	100,000 hrs operation at 25˚C

Environmental Specifications

Operating Temperature	5˚C to 40˚C (41˚F ~104˚F)
Storage Temperature	-10˚C to 60˚C (14˚F ~140˚F)
Storage Humidity	10% to 90%@ 40˚C, non-condensing
EMI / Safety	CE/FCC class B passed18, ISO 14971, EN60601-1:2006

TouchScreen (Optional)

Type	5-wire, Analog Resistive
Interface	USB Type B
Resolution	4096 x 4096
Light Transmission	> 80%
Life Time	ONYX-515 / 517 : 35,000,000 times ONYX-519 : 10,000,000 times

Display Modes Memory

The micro-controller has the memory capacity to store different display modes, including timing formats and display-settings.

There are some preferred display modes preset in the micro-controller. These display modes are preset at the factory and include the most popular display modes currently available. The micro-controller searches for a proper display mode in this area if it fails to find a proper display mode in the user setting area.

ONYX-515

	MODE	Resolution (Dots*lines)	Horizontal Freq.(KHz)	Vertical Freq.(Hz)	Remark
1.	VGA	640×350	31.5	70	Non-interlaced
2.	VGA	720×400	31.5	70	Non-interlaced
3.	VGA	640×480	31.5	60	Non-interlaced
4.	VESA/75	640×480	37.5	75	Non-interlaced
5.	VESA/60	800×600	37.9	60	Non-interlaced
6.	VESA/75	800×600	46.9	75	Non-interlaced
7.	VESA/60	1024×768	48.4	60	Non-interlaced
8.	VESA/70	1024×768	56.5	70	Non-interlaced
9.	VESA/75	1024×768	60.0	75	Non-interlaced

ONYX-517 / 519

	MODE	Resolution (Dots*lines)	Horizontal Freq.(KHz)	Vertical Freq.(Hz)	Remark
1.	VGA	640×350	31.5	70	Non-interlaced
2.	VGA	720×400	31.5	70	Non-interlaced
3.	VGA	640×480	31.5	60	Non-interlaced
4.	VESA/75	640×480	37.5	75	Non-interlaced
5.	VESA/60	800×600	37.9	60	Non-interlaced
6.	VESA/75	800×600	46.9	75	Non-interlaced
7.	VESA/60	1024×768	48.4	60	Non-interlaced
8.	VESA/70	1024×768	56.5	70	Non-interlaced
9.	VESA/75	1024×768	60.0	75	Non-interlaced
10.	VESA/60	1280×1024	64.0	60	Non-interlaced
11.	VESA/75	1280×1024	80.0	75	Non-interlaced

Power Saving Feature

When the power saving active them the power indicator LED will be from Green Light to Amber, And power saving feature complies with these VESA power saving modes:

ONYX-515

Mode	H. Sync.	V. Sync.	LED	Power Consumption
Normal	On	On	Green	<30W
Stand-by	Off	On	Amber	< 3W
Suspend	On	Off	Amber	< 3W
Off	Off	Off	Amber	< 3W

ONYX-517

Mode	H. Sync.	V. Sync.	LED	Power Consumption
Normal	On	On	Green	<36W
Stand-by	Off	On	Amber	< 3W
Suspend	On	Off	Amber	< 3W
Off	Off	Off	Amber	< 3W

ONYX-519

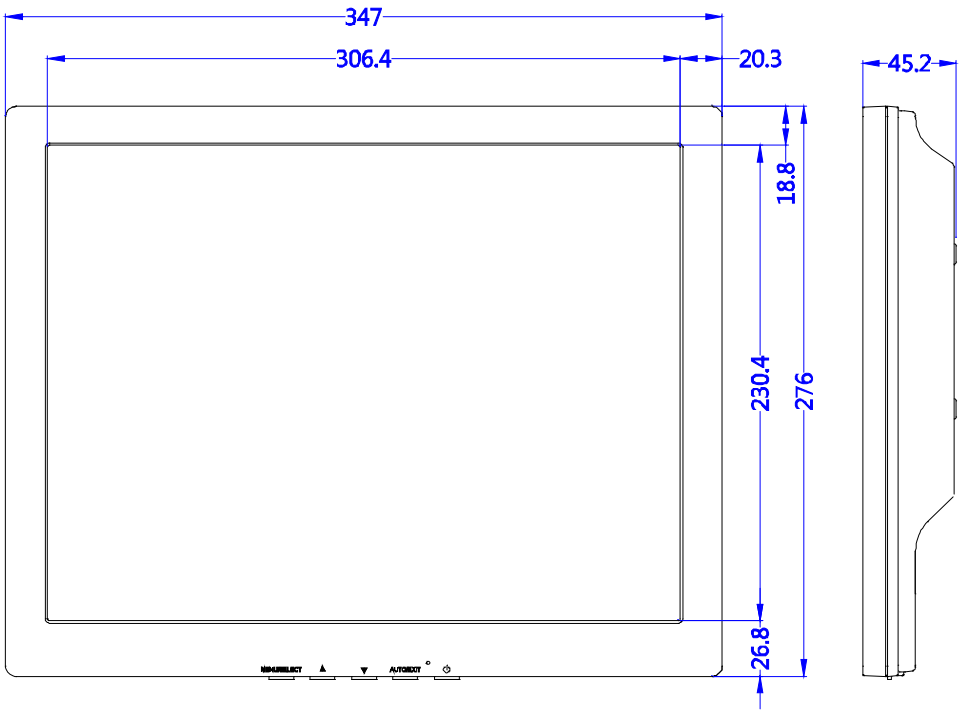
Mode	H. Sync.	V. Sync.	LED	Power Consumption
Normal	On	On	Green	<40W
Stand-by	Off	On	Amber	< 3W
Suspend	On	Off	Amber	< 3W
Off	Off	Off	Amber	< 3W

The monitor uses the H. Sync and V. Sync signals to determine the operation mode to enter. The monitor power-saving feature automatically turns off H. Sync and V. Sync if there is no input from the system for a certain period of time. To use this feature, you

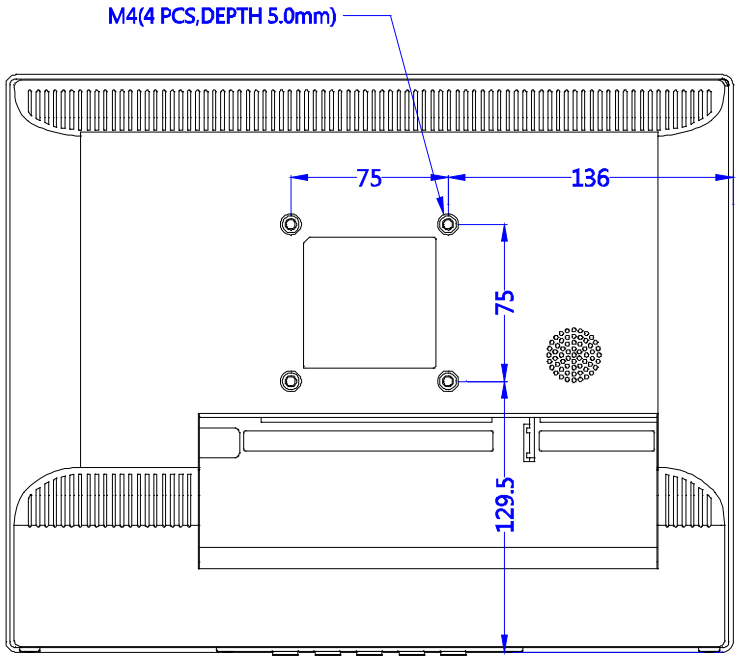
need a green PC that is compliant with the VESA power saving feature or a software utility to detect system input such as keyboard or mouse.

1.4 Dimension

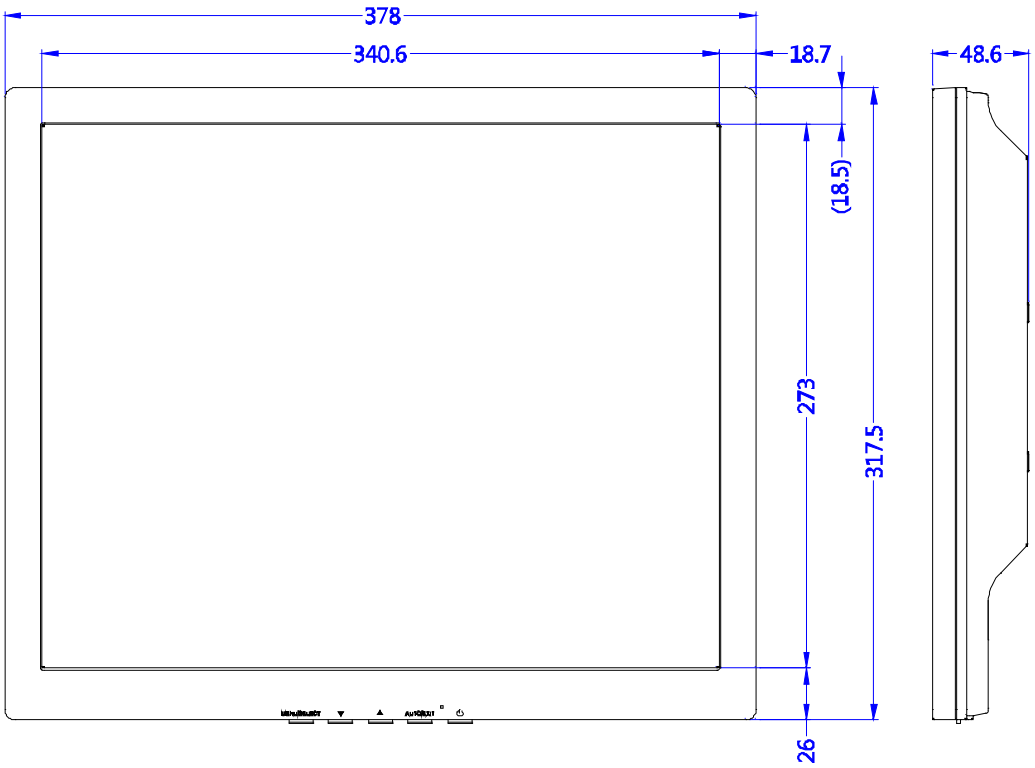
ONYX-515

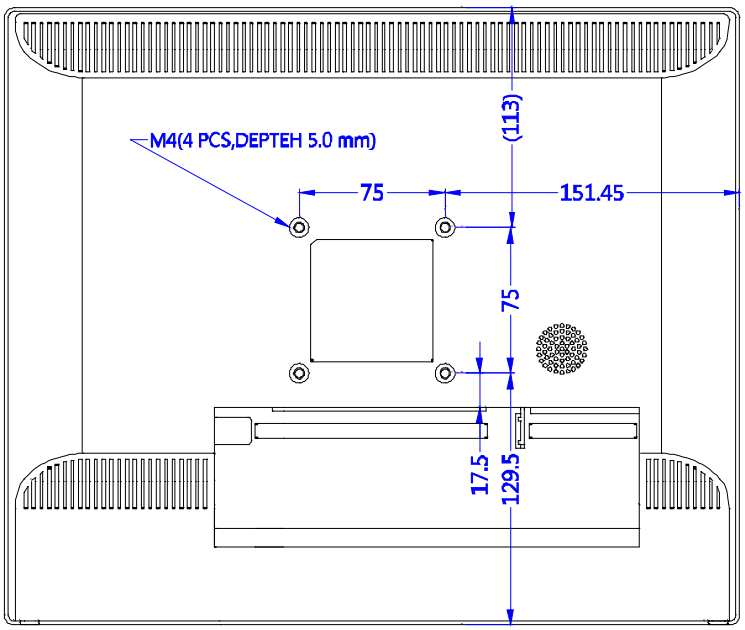


UNIT : mm

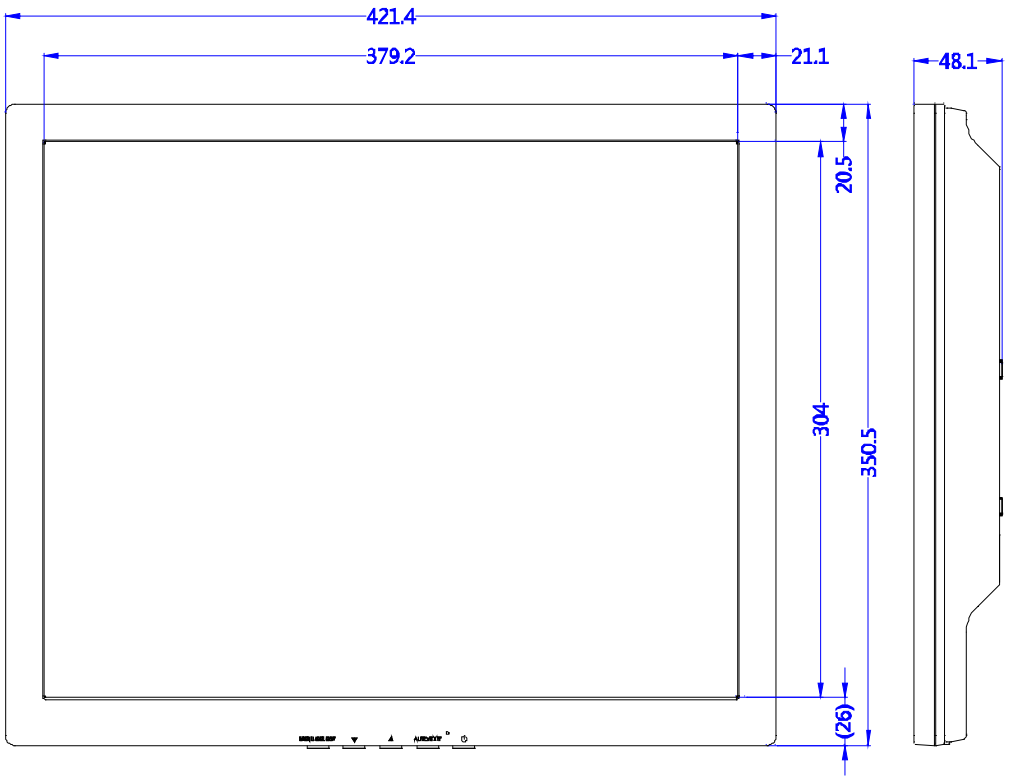


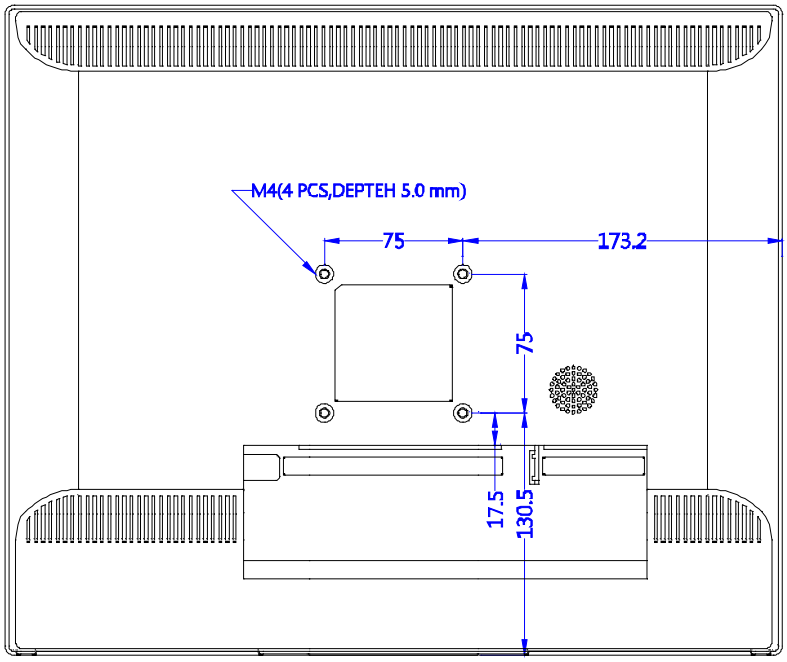
ONYX-517


378
340.6
18.7
48.6
(18.5)
273
317.5
26


M4(4 PCS,DEPTEH 5.0 mm)
(113)
75
151.45
75
17.5
129.5

ONYX-519

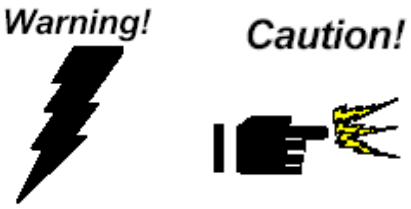

421.4
379.2
21.1
48.1
20.5
304
350.5
(26)


M4(4 PCS,DEPTEH 5.0 mm)
75
173.2
75
17.5
130.5

Chapter 2

Hardware Installation

2.1 Safety Precautions



Keep the monitor out of direct heat source.

Keep the flowing air of ventilation holds on the cabinet.

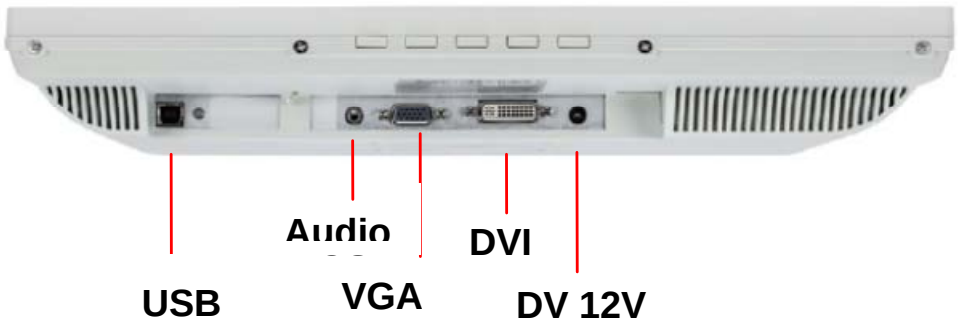
Do not drop or knock the monitor.

2.2 Connecting to the computer

- Turn off the computer and the Medical Display before the connection

I/O ports

ONYX-515 / 517 / 519



Chapter 3

On Screen Display Controls

3.1 On Screen Display Controls

The LCD monitor is very easy and simple to operate. The monitor digital control functions are located on the front panel. They are shown in the figure below and described in the following paragraphs.

1. Indicator LED
2. Power Switch
3. Function Keys

3.2 Function Select

With the △ and ▽ knobs, you can adjust the speaker's volume. Press the "MENU/SELECT" knob to show the OSD menu. Then use the △ and ▽ knobs to select a function. Press the "AUTO/EXIT" knob to close the OSD menu. You can hold the "AUTO/EXIT" knob for more than 3 second to adjust the image quality automatically. The OSD menu will close automatically after 3-10 seconds without operation and saves any changes you have made.

3.3 Function Adjustment

1. Signal Select

VGA - Select the image signal coming from the VGA cable.

DVI - Select the image signal coming from the DVI cable.(option)

Exit - Close the Signal Select OSD menu.

2. Video

Brightness - Adjust the luminance level in the image.

Contrast - Adjust the difference in luminance between light and dark areas of the image.

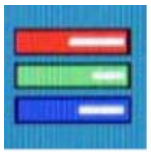
Exit - Close the OSD menu.

3.Audio

Volume - Adjust the volume of speakers.

Exit - Exit the Audio OSD menu.

4.Color Color Temperature



User - Adjust the R.G.B. gain level.

6500K - Select color temperature to 6500°K.

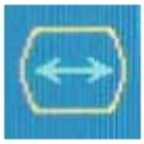
9300K - Select color temperature to 9300°K.

Exit - Close the Color Temperature OSD menu.

Exit - Close the Color OSD menu.

5.Image

Auto Tune - Adjust geometry of the image automatically.



Clock - Adjust the horizontal sync size of signal.

Phase - Adjust the horizontal sync phase of signal.

H. Position - Adjust the horizontal position of the image.

V. Position - Adjust the vertical position of the image.

Exit - Close the Image OSD menu.

6.Language

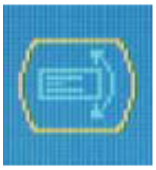
- Sets the language of the OSD windows.

7.Tools : OSD control

OSD Timer - Setting the OSD menu display time.

OSD H. Position- Adjust the horizontal position of the OSD menu.

OSD V. Position- Adjust the vertical position of the OSD menu.



OSD Rotation -Rotate the OSD menu.

Exit - Close the OSD menu.

Recall - Recall the factory default setting.

Sharpness - Adjust the picture display more clear.

Exit - Close the Tools OSD menu.

8.Exit

- Close the OSD menu.

Chapter 4

Driver Installation

4.1 Touch screen Driver Installation

1. Your computer may ask you for monitor drivers or a driver disk when you first install your monitor.

2. Please insert the CD-ROM into CD-drive.

2. Click on the ***Touch*** folder

3. Double click on ****exe*** file and follow the instructions that the window shows

4. The system will help you install the driver automatically

Chapter 5

Appendix

5.1 General Cleaning Tips

You may need the following precautions before you begin to clean the monitor. When you clean the monitor, please read and understand the details below fully.

1. Never spray or squirt the liquids directly onto monitor. If you need to clean the device, please rub it with a piece of dry cloth.
2. Turn the system off before you start to clean up the monitor.
3. Use a dry, soft cloth and very gently wipe the screen.
4. Never drop the components inside the monitor or get circuit board damp or wet.
5. Never use organic solvent, such as alcohol, to clean your monitor.
6. Try not to put any food, drink or cigarette around the display.

5.2 Cleaning tools

Although many companies have created products to help improve the process of cleaning your monitor, users can also use household items to clean their display. Below is a listing of items you may need or want to use while cleaning your monitor.

- **Soft Cloth** – You could use a soft cloth to clean the monitor.

A great choice would be the microfiber type of cloth used to clean eyeglasses.

- **Water or Isoprophy alcohol** – If necessary, you may moisten a piece of cloth a bit with some water or Isoprophy alcohol and rub it on the monitor. Unknown solvents may be harmful to the monitor.

Please follow the steps below.

1. Turn off the monitor
2. Pull out power cable
3. Use a dry, soft cloth and gently wipe the screen

5.3 Scrap Computer equipments Recycling

If the computer equipments need the maintenance or are beyond repair, we strongly recommended that you should inform us as soon as possible for the suitable solution. For the computer equipments that are no longer useful or work well, please contact with worldwide distributors for recycling.

The worldwide distributors show on the following website:

http://www.onyx-healthcare.com/Contact.php

Note:

Follow the national requirements to dispose unit